

REMARKS

Applicants respectfully request entry of the amendments and remarks submitted herein. Claim 12 has been amended herein to remove the references to “and/or.” Support for this amendment can be found in the claims as originally filed and in the specification at, for example, page 2, third full paragraph.

Claims 1-7 and 9-31 are currently pending. Reconsideration of the pending application is respectfully requested.

The 35 U.S.C. §112 Rejections

Claim 12 stands rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention.

Without acquiescing to the Examiner's rejection, and to further prosecution, Applicants have amended claim 12 to remove the references to “and/or”; claim 12 now recites “water or water miscible liquid(s) . . . vitamin(s) or mineral(s).” In light of this amendment, one of ordinary skill in the art would understand the metes and bounds of claim 12. Accordingly, Applicants respectfully request that the rejection of claim 12 under 35 U.S.C. §112, second paragraph, be withdrawn.

The 35 U.S.C. §103 Rejections

Claims 1-4, 6-7, 9-10, 12-25 and 27-31 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sarneel et al. (WO 04/084640) in view of Sakuma et al (WO 03/067999) and Roberts (US Patent No. 4,103,038). Specifically, the Examiner alleged that it would have been obvious to modify the formulation in Sarneel to include whey protein in place of or in addition to eggs. Applicants respectfully traverse this rejection.

The present claims are directed toward compositions that include starch n-octenyl succinate and whey protein for use as an egg replacement in bakery products. Applicants' specification teaches that using the presently claimed compositions in place of eggs in bakery products reduces the cholesterol in the bakery products.

Sarneel teaches a multipurpose dry mix for use in sweet and savory food applications, in particular, in bakery products. Sarneel teaches that its dry mix can be completed with a liquid to form a completed mix which can then be used e.g., as a filling or spread for cooked, baked, fried food products (see claims 11 and 14). In contrast to the present disclosure, eggs are an essential ingredient in the Sarneel compositions. Further, as acknowledged by the Examiner, Sarneel does not teach or suggest a composition that includes starch n-octenyl succinate within the ranges recited in the present claims (OA at page 4).

The multipurpose mix of Sarneel is to be used as a substitute viscous filling that can be placed into a casing such as, for example, a pastry, sponge crumble, biscuits, cake batter, bread, bread-crumbs (see, for example, pending claims 10-15 compared to, for example, page 12, lines 23-24, and Example 5 of Sarneel). The multipurpose mix of Sarneel is intended to have a certain viscosity in order to be able to replace fillings such as cheese sauce, and, thus, is not suitable for replacing an ingredient like egg that needs to have a light structure and must be able to entrap air in order to give the final bakery product its characteristic aerated structure. Indeed, as demonstrated in Example 8 of Sarneel, it is clear that the multipurpose mix is not intended to replace eggs since the cake dough itself contains eggs.

Contrary to the Examiner's assertion, Sarneel does not teach or suggest the production of low-cholesterol products. Because Sarneel does not suggest low cholesterol products or any type of egg substitute, Sarneel does not provide motivation to modify their dry mix to include the particularly claimed ingredients in the particularly claimed amounts (i.e., 40-80% starch n-octenyl succinate and 10-40% whey protein).

The Examiner also cited Sakuma, which does not cure the deficiencies of Sarneel. Sakuma teaches methods for producing an oil/fat powder containing diglycerides that is excellent in taste, texture, storage stability and dispersibility in water, and, at the same time, has good dispersibility in powders such as protein and carbohydrate. The oil/fat powder as taught by Sakuma comprises 15 to 79.9 wt% of a glyceride mixture, 20 to 84.9 wt% of powder-forming bases selected from carbohydrates, proteins and peptides, and 0.1 to 5 wt% water. Sakuma does not, however, teach or suggest the production of low-cholesterol products or the use of an egg substitute; nor does Sakuma teach or suggest a composition that includes the claimed ingredients in the claimed amounts (i.e., 40-80% starch n-octenyl succinate and 10-40% whey protein).

The Examiner additionally cited Roberts, who teaches an egg substitute that includes 30% to 75% ultrafiltered whey protein as well as fats and emulsifiers. Roberts does not, however, teach or suggest a composition that includes starch n-octenyl succinate within the ranges recited in the present claims. Roberts also does not teach or suggest using whey in the claimed amounts.

Applicants respectfully submit that the Examiner has provided no rationale as to why a person having ordinary skill in the art would combine the teachings of either or both of Sarneel and Sakuma with Roberts when neither Sarneel nor Sakuma teaches or suggests the use of an egg substitute to produce low-cholesterol products. The Examiner's allegation that one of ordinary skill would arrive at the presently claimed amounts through "routine optimization" to obtain the "desired nutritional factor, taste, texture and flavor" is unsupported by any teaching or suggestion in the cited references, either alone or in combination. As the Supreme Court has stated, "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (*KSR* at 401, quoting *In re Kahn*, 441 F.3d 997, 988 (Fed. Cir. 2006)).

Applicants further submit that a claim "composed of several elements is not proved obvious merely by demonstrating that each element was, independently, known in the prior art." *KSR* at 401. The Courts have clearly indicated that there must be some teaching, suggestion, or incentive to make the claimed invention beyond the mere disclosure of individual components of the claimed invention, either separately or in other combinations. *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931 (Fed. Cir. 1990). In the present case, a person of ordinary skill in the art would not have been prompted to modify the compositions of Sarneel in view of Sakuma or Roberts to produce the presently claimed dry compositions for use as an egg substitute in low cholesterol bakery products. As such, the present claims are patentable over the cited references.

For at least the reasons presented herein, the combination of references cited by the Examiner does not render obvious the claimed compositions. Accordingly, Applicants respectfully request that the rejection of claims 1-4, 6-7, 9-10, 12-25 and 27-31 under 35 U.S.C. §103(a) be withdrawn.

Claim 5 stands rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sarneel et al. (WO 04/084640) in view of Sakuma et al (WO 03/067999) and Roberts (U.S. 4,103,038) further in view of Gisaw et al. (U.S. 6,558,730). This rejection is respectfully traversed.

As indicated above, independent claim 1 is not obvious over Sarneel in view of Sakuma and Roberts. As such, claim 5, which depends from claim 1, also is not obvious. "Dependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious." *In re Fine*, 837 F.2d 1071 (C.A. Fed. 1988), citing *Hartness Int'l, Inc. v. Simplimatic Eng'g Co.*, 819 F.2d 1100, 1108, 2 USPQ2d 1826, 1831 (Fed.Cir.1987); *In re Abele*, 684 F.2d 902, 910, 214 USPQ 682, 689 (CCPA 1982); and *In re Sernaker*, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed.Cir.1983). Accordingly, Applicants respectfully request that the rejection of claim 5 under 35 U.S.C. §103(a) be withdrawn.

Claims 11 and 26 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Sarneel et al. (WO 04/084640) in view of Takashima (US 2001/0055638) and Roberts (US Patent No. 4,103,038). Specifically, the Examiner alleged that Sarneel teaches a dry mixture of ingredients and that Takashima teaches adding thermocoagulation proteins such as whey protein. The Examiner further alleged that it would have been obvious to one of ordinary skill in the art to include whey protein in order to avoid shrinkage during baking. This rejection is respectfully traversed.

The compositions of pending claims 11 and 26 and the compositions taught in the cited references are summarized in the following table:

Claim 11 of the present invention	Claim 26 of the present invention	Sarneel	Takashima	Roberts
10-20% Flour	10-15% Flour	5-15% Flour	[None]	-
1-15% n-Osa starch	4-12% n-Osa starch	1-10% n-Osa starch [and 20-45% starch hydrolysates]	[Starch + pre-gelatinized starch]	-
0.1-7% Whey protein	1-6% Whey protein	[10-20% gluten]	Powdered egg or whey protein as a thermocoagulation protein	30-75% whey protein
0-40% Egg	0-10% Egg			[None]
0-10% Emulsifier	0-5% Emulsifier		yes	0.2-17% Emulsifier
		15-28% Fat	Fat, sugar, oil and milk	5-65% Fats

For the following reasons, one of ordinary skill in the art would not arrive at the claimed composition by combining the teachings of Sarneel, Takashima, and Roberts. First, there is nothing in Sarneel or Takashima or Roberts that would prompt a skilled artisan to combine the whey protein in the compositions of Takashima or Roberts with the n-Osa starch in the composition of Sarneel. Second, there is no logical calculation, and certainly not one taught by any combination of Sarneel, Takashima, or Roberts, that would permit a skilled artisan to arrive at the ingredient ranges required in claims 11 and 26. For example, Sarneel teaches a composition having 20-45% starch n-octenyl succinate; the claimed amount of starch n-octenyl succinate would have to be modified by a factor of 3 to 20 to obtain the amounts of starch n-octenyl succinate disclosed by Sarneel. In addition, the Roberts discloses a composition that includes 30-75% whey protein. The claimed amount of whey protein would have to be modified by a factor of 10 to 300 to obtain the amounts of whey protein disclosed by Roberts. Therefore, there is no teaching or suggestion in the cited references, when applied alone or in combination, that would prompt one of ordinary skill in the art to make such significant modifications to the cited references in order to obtain the presently and particularly claimed compositions.

As discussed herein, the Supreme Court has stated that “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (*KSR* at 401, quoting *In re Kahn*, 441 F.3d 997, 988 (Fed. Cir. 2006)). In addition, a claim “composed of several elements is not proved obvious merely by demonstrating that each

element was, independently, known in the prior art.” *KSR* at 401. The Courts have clearly indicated that there must be some teaching, suggestion, or incentive to make the claimed invention beyond the mere disclosure of individual components of the claimed invention, either separately or in other combinations. *Northern Telecom, Inc. v. Datapoint Corp.*, 908 F.2d 931 (Fed. Cir. 1990).

For at least these reasons, a person of ordinary skill in the art reading the combination of Sarneel with Takashima and Roberts would not have been prompted to make the presently recited dough or bakery mixtures. As such, the present claims are patentable over these combinations of references, and Applicants respectfully request that the rejection of claims 11 and 26 under 35 U.S.C. §103(a) be withdrawn.

Double Patenting

Claims 11 and 26 are rejected on the ground of nonstatutory obviousness-type double patenting as allegedly being unpatentable over claims 1, 4, 8 and 17 of U.S. Patent No. 6,663,909 in view of Takashima (U.S. Publication No. 2001/0055638 A1).

Applicants respectfully disagree with respect to the present claims, for all of the reasons given above, and as follows. Obviousness-type double patenting requires “clear evidence” of obviousness to establish why a variation would have been obvious. *In re Kaplan*, 789 F.2d 1574 (Fed. Cir. 1986). Analysis employed in an obviousness-type double patenting rejection parallels the guidelines for analysis of a 35 U.S.C. § 103 obviousness determination, including application of the *Graham v. John Deere* factors. See *In re Braat*, 937 F.2d 589 (Fed. Cir. 1991); *In re Longi*, 759 F.2d 887 (Fed. Cir. 1985); and MPEP § 804.

Claims 1, 4, 8, and 17 of U.S. Patent No. 6,663,909 in view of Takashima are not directed toward a dough or batter mixture having starch n-octenyl succinate, whey, and the other ingredients in the amounts specifically recited, and the Examiner has provided no clear evidence as to why such compositions would have been obvious. Applicants respectfully submit that the present claims are patentably distinct because there is no description of or motivation to develop the presently claimed dough or batter mixtures having starch n-octenyl succinate with the specifically recited properties in the cited claims of U.S. Patent No. 6,663,909.

Applicant : Frans Johan Sarneel et al.
Serial No. : 10/568,216
Filed : February 18, 2006
Page : 12 of 12

Attorney's Docket No.: 19790-0006US1 / CER03-0018

In light of the above, Applicants respectfully request withdrawal of the non-statutory, obviousness-type double-patenting rejection of claims 11 and 26.

CONCLUSION

Applicants respectfully submit that claims 1-7 and 9-31 are in condition for allowance, which action is respectfully requested. If a telephone call to the undersigned would expedite prosecution of the pending claims, the Examiner is encouraged to do so.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

/August 4, 2010/

/M. Angela Parsons/

Date: _____

M. Angela Parsons, Ph.D.
Reg. No. 44,282

Customer Number 26191
Fish & Richardson P.C.
Telephone: (612) 335-5070
Facsimile: (877) 769-7945